

OIB - P-3 Orion 11/25/17 Science Report

Aircraft: [P-3 Orion - WFF](#) ([See full schedule](#))

Date: Saturday, November 25, 2017

Mission: OIB

Mission Location: Ushuaia, Argentina

Mission Summary:

Mission: Venable 01B (priority: high)

This is a new flight, primarily designed to map the bathymetry beneath the Venable Ice Shelf. This and the Venable 01A flight are companion flights. Each flight by itself establishes a grid spaced at 20 km, and together they establish a 10 km grid.

Yesterday's generally favorable weather in the Bellingshausen Sea sector, and especially along the Eights Coast, continued into this morning. The NOAA HRPT satellite imagery provided to us by our Rothera friends showed that the Venable Ice Shelf and adjacent coastal areas were completely clear. The two sea ice missions in the area, however, were mostly covered in low cloud, with a few open areas. Our numerical weather models suggested some deterioration in conditions throughout the sector during the day. While it was possible that we could have worked beneath the clouds for the baseline-priority sea ice mission, we also had to consider the impact that our continuing problems with the snow radar (discussed below) could have on the objectives of that mission. We selected the high-priority Venable 01B mission as our best option, given those considerations. Skies were completely clear, aside from a little cirrus, throughout our science lines, with light offshore winds and almost no turbulence. We achieved successful data collection across 100% of the lines.

The CReSIS team worked late last night, early today and also during the lengthy transit to today's data line to improve the performance of the snow radar, which experienced a sudden increase in incoherent noise two flights ago. They partially succeeded. They were able to reduce the noise significantly, but Jilu Li reports that the instrument's noise floor remained about 5 dB above its nominal level for today's science data collection period. All other instruments performed well.

Data volumes

ATM T6: 27 Gb

ATM T7: 31 Gb

FLIR: 3.0 Gb

Cambot: 10 Gb

KT19: 12 Mb

DMS: 15 Gb

MCoRDS: 238 Gb

Gravity/Magnetometer: 3 Gb

Accumulation radar: 264 Gb

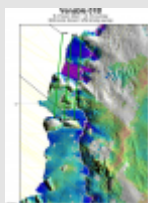
Snow/Ku radar: 269 Gb

data on: 1900

data off: 2030

Images:

Map of Venable 01B



[Read more](#)

Embayment near Farwell Island



[Read more](#)

Venable Ice Shelf



[Read more](#)

Northeastern Venable



[Read more](#)

Submitted by: John Sonntag on 11/25/17

Related Flight Report:

P-3 Orion 11/25/17 - 11/26/17

Flight Number: OIB-Ushuaia Science Flight #11

Payload Configuration: OIB - Ushuaia 2018

Nav Data Collected: No

Total Flight Time: 9.5 hours

Submitted by: Kelly Griffin on 11/25/17

Flight Segments:

From:	SAWH	To:	SAWH
Start:	11/25/17 15:01 Z	Finish:	11/26/17 00:31 Z
Flight Time:	9.5 hours		
Log Number:	18P006	PI:	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		

Flight Hour Summary:

	18P006
Flight Hours Approved in SOFRS	151
Total Used	156
Total Remaining	-5

18P006 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
10/17/17	OIB - Airworthiness Test Flight	Check	1.1	1.1	149.9	

10/18/17	OIB - Project Test Flight	Check	3.5	4.6	146.4
10/19/17	OIB PTF - Radar	Check	4.5	9.1	141.9
10/23/17	OIB - Transit leg #1	Transit	7.1	16.2	134.8
10/24/17	OIB - Transit leg #2	Transit	6.5	22.7	128.3
10/25/17	OIB - Transit leg #3	Transit	7	29.7	121.3
10/29/17 - 10/30/17	OIB-Ushuaia Science Flight #1	Science	9.7	39.4	111.6
10/31/17	OIB-Ushuaia Science Flight #2	Science	8.9	48.3	102.7
11/03/17	OIB-Ushuaia Science Flight #3	Science	9	57.3	93.7
11/04/17	OIB-Ushuaia Science Flight #4	Science	9.3	66.6	84.4
11/12/17	OIB-Ushuaia Science Flight #5	Science	9.5	76.1	74.9
11/14/17	OIB-Ushuaia Science Flight #6	Science	9.8	85.9	65.1
11/16/17	OIB-Ushuaia Science Flight #7	Science	9.1	95	56
11/21/17	OIB-Ushuaia Science Flight #8	Science	9.4	104.4	46.6
11/22/17 - 11/23/17	OIB-Ushuaia Science Flight #9	Science	9.9	114.3	36.7
11/24/17	OIB-Ushuaia Science Flight #10	Science	9.6	123.9	27.1
11/25/17 - 11/26/17	OIB-Ushuaia Science Flight #11	Science	9.5	133.4	17.6
11/27/17	OIB-Ushuaia SAWH-SCDA Transit Flight	Transit	7	140.4	10.6
11/28/17	OIB-Ushuaia SCDA-MROC Transit Flight	Transit	7	147.4	3.6
11/29/17	OIB-Ushuaia MROC-KNGU Transit Flight	Transit	6.3	153.7	-2.7
11/29/17	OIB-Ushuaia KNGU-KWAL Transit Flight	Transit	0.8	154.5	-3.5
12/04/17	OIB-Post Mission Calibration Flight	Science	1.5	156	-5

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Page Last Updated: April 22, 2017

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